

Symposium on Large Lithium Ion Battery Technology and Application

# LLIBTA 2008

## AGENDA

### **SESSION 1 – Advances in Li Ion Battery Materials**

*Tuesday May 13, 2008*

*Please note that some of the following presentations will consist of a 10-minute oral presentation supplemented by a poster.*

- 1. Functional Binders as Measure towards Better Electrode Integrity - A Case Study on Si/C Composite Anodes**  
Martin Winter, *Chair, Applied Material Science for Energy Conversion and Storage, University of Muenster*
- 2. StabiLife™ Electrolyte Salts: Improving Battery Thermal Stability in High Power Batteries**  
Bill Casteel, *Lead Research Scientist, Air Products and Chemicals, Inc.*
- 3. Boron-Based Lewis Acids as Additives in LiF Based Electrolytes and Their potential to be Used in High Voltage Lithium-ion Batteries**  
Xiao-Qing Yang, *Scientist, Brookhaven National Laboratory*
- 4. Long-term Cycling of Lithium-polymer Electrolyte Batteries Containing Ionic Liquids**  
Stefano Passerini, *Institute of Physical Chemistry, Westfälische Wilhelms-Universität, Germany*
- 5. Stability Improvement of Lithium Manganese Spinel for High-power Batteries**  
Hideaki Sadamura, *Head of R&D for cathode materials, Toda Kogyo Corp.*
- 6. Advances in Li-Ion Cathodes for HEV: Lithium Manganese Phosphate**  
James Miners, *Chief Operating Officer, High Power Lithium SA*
- 7. Precursor Particle Engineering for Improved Cathode Performance**  
Archit Lal, *Materials Scientist, Primet Precision Materials, Inc.*
- 8. Development of Surface Modified Carbon Anode Material for High-power Lithium-Ion Battery**  
Tatsuya Nishida, *Responsible for R&D of Anode Materials, Hitachi Chemical Co.*
- 9. The Application of Vapor Grown Carbon Fiber (VGCF™) to Lithium-Ion Battery Technology**  
Chiaki Sotowa, *Manager, Fine Carbon Department, Inorganics Sector, Showa Denko K. K.*
- 10. Advanced Anode Material for High Performance Li-Ion Batteries**  
Bharat Chahar, *Ph.D., Manager, CPreme™ Energy Storage Materials*

11. **Thermal and Electrochemical Behaviors of Lithium Vanadium Oxide Anode for Li-Ion Batteries**  
Sung-Soo Kim, *Principal Engineer in Advanced Battery Development*, Energy LAB., Samsung SDI
12. **Innovative inorganic-blended separator for higher-performance lithium-ion Hybrid/EV batteries**  
Hiroshi Hatayama, *R&D Engineer*, Asahi Kasei Chemical Co.
13. **ExxonMobil Coextrusion Separator Technology Platform for HEV/EV LIB**  
Patrick Brant, *Chief Polymer Scientist*, ExxonMobil Chemical Company

## **SESSION 2a – Life of Li Ion Batteries**

*Tuesday May 13, 2008*

1. **Overview of the Life of Li-Ion Batteries**  
Robert Spotnitz, *President*, Battery Design Company
2. **Life Characteristics of Li-ion Batteries for Aerospace Applications**  
Marshall Smart, *Senior Member of Technical Staff Electrochemical Technologies Group Device*, Jet Propulsion Lab., California Institute of Technology
3. **Three-Dimensional Lithium-Ion Battery Model**  
Gi-Heon Kim, *Senior Research Engineer*, National Renewable Energy Lab.
4. **Application of Microscopic Characterization Techniques for Failure Analysis of Battery Systems**  
Quinn Horn, *Managing Engineer*, Exponent Failure Analysis Associates

## **SESSION 2b – Safety and Reliability of Li Ion Batteries**

*Tuesday May 13, 2008*

1. **Battery Hazard Modes and Risk Mitigation Analysis**  
Cyrus Ashtiani, *Senior Specialist & Manager of USABC Programs*, Chrysler LLC
2. **Thermal Reactivities of Cathode and Anode in Lithium-Ion Batteries**  
Khalil Amine, *Manager*, Argonne National Laboratory
3. **Li-Ion Safety—Operating Region, Internal Short, and Separator**  
John Zhang, *Chief Technical Officer*, Celgard LLC
4. **Thermal Abuse Modeling of Lithium-Ion Cells and Propagation in Modules**  
Ahmad Pesaran, *Principal Engineer*, National Renewable Energy Laboratories

## **SESSION 3 – Design and Performance of Li Ion Batteries in High-Power Applications**

Wednesday May 14, 2008

Please note that some of the following presentations will consist of a 10-minute oral presentation supplemented by a poster.

1. **Energy Storage R&D: Progress in High Power Li-Ion Batteries**  
Tien Duong, *Team Leader, Hybrid and Electric Systems, Office of Vehicle Technologies, U.S. Department of Energy* (**Due to unforeseen circumstances this paper could not be included in this book**)
2. **Development of High-energy Lithium-Ion Battery Pack for Pure EV Application**  
Takuya Miyashita, *Engineer, Mitsubishi Motors Corporation*
3. **Development of Laminate-type Mn Li-ion Battery for EV with Rapid Charging**  
Nobuaki Yoshioka, *Senior Executive Vice President, NEC / Automotive Energy Supply Corporation*
4. **Development of Lithium-Ion Battery for FCHEV Application**  
Tatsuo Horiba, *Chief Engineer, Hitachi Vehicle Energy Ltd.*
5. **Battery Pack Technology and Integration in Military Hybrids**  
Jim Hess, *Director of Defense Sales, SAFT America Inc.*
6. **New High-Power Battery Product with Advanced Safety Feature**  
Shinichiro Kosugi, *Chief Specialist, Toshiba Corporation*
7. **Lithium-Ion Battery System Architecture for HEV and EV Applications**  
Sean Hendrix, *Director, Program Management and BMS Development, EnerDel*
8. **Nano-Li<sub>4</sub>Ti<sub>5</sub>O<sub>12</sub>-based HEV Batteries**  
Vesco Manev, *Director R&D, Power and Energy Systems, Altair Nanotechnologies, Inc.*
9. **Long Life and High Energy Density Power Battery for HEV and PHEV Application**  
Jeon Oh, *Leader of HEVB Project, SK Energy*
10. **Quallion Matrix Power Module System**  
Hisashi Tsukamoto, *CEO and CTO, Quallion LLC*
11. **High Performance Light Electric Vehicle: a Challenge for Designing Li-Ion Battery Systems**  
Valerio Conte, *Business Unit Monitoring, Energy and Drive Technologies, Arsenal Research*